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RESEARCH ARTICLE

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The dynamic role of "should expectation" in service recovery paradox

Abstract This paper proposes a theoretical framework which applies concepts of "will expectation" and "should expectation" to exploring the effects of service recovery on customers' post-recovery satisfaction. The relationship among customers' perceptions of service recovery and their different expectations for service recovery will determine the probability of customers' post-recovery satisfaction exceeding their pre-failure satisfaction (service recovery paradox, SRP). Only when perceptions are higher than both will and should expectations, SRP is much likely to occur. In other cases, it will be difficult to have SRP. We extend this theory to dynamic process. The proposed theory could explain the conflicting findings of previous studies about SRP. Results of exploratory studies provide empirical support for our theory in the static case. Managerial implications and further research direction are also discussed.

Keywords will expectation, should expectation, service recovery paradox, customer satisfaction

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摘要 通过提出一个理论框架，试图解决已有文献中关于服务补救悖论是否存在的争论。在引入“可能期望”和“应该期望”的概念的基础上，针对单次补救和多次补救的情境，讨论了两种期望和服务补救感知之间的关系以及对服务补救满意度的影响。结论认为服务补救感知和应该期望之间的不一致才是导致服务补救悖论产生的直接原因，从理论上解决了对服务补救悖论的矛盾发现。最后讨论了这一理论的学术和实践意义。

关键词 可能期望，应该期望，服务补救悖论，顾客满意度

1 Introduction

Over the past few years, many studies have focused on service recovery to examine the influence of service failure and recovery on customers' evaluation and behavior intentions (e.g., Andreassen, 2001; Hess, Ganesan and Klein, 2003; McColl-Kennedy and Sparks, 2003). The reason is that more managers come to realize that retaining an existing customer will be more profitable than acquiring a new one (Almquist, Heaton and Hall, 2002). And effective service recovery or complaint handling will be helpful to maintain customer retention rates and favorable word of mouth (e.g., Fornell and Wernerfelt, 1987; Kelly, Hoffman, and Davis, 1993; Reichheld, 1993).

However, there is no universal acknowledgement about whether satisfaction after a failure and superior recovery is higher than that of customers without failure occurred or than that of pre-failure period, that is, the so-called "service recovery paradox". In prior research, scholars provided evidence that post-recovery satisfaction levels can not be restored despite of effective recoveries (Andreassen, 2001; Bolton and Drew, 1991; McCollough, Berry and Yadav, 2000). However, other scholars demonstrated later that the paradox could occur (McCollough, Berry and Yadav, 2000), and empirical supports has been provided (Smith and Bolton, 1998). Why can recoveries not restore consumers' satisfaction consistently?

In this study, we will answer this question by developing a framework and providing empirical evidence. Specifically, we apply the dual-expectation model (Boulding et al, 1993) to service recovery context and explore the effects of will expectation (WE) and should expectation (SE) for service recovery on consumers' satisfaction after service recovery. Although previous studies about service recovery has only taken WE into consideration and WE is consistently not higher than SE (Boulding et al, 1993), we argue that both will and SEs play important roles in determining whether service recovery paradox could occur. Under the condition that service recovery delivery is perceived higher than

consumers' WEs, only when it is also perceived higher than SE, consumers' post-recovery satisfaction could be restored to be higher than that of pre-failure period. If perceived service recovery delivery is lower than WE, it is impossible to find service recovery paradox. However, when perceived service recovery delivery falls into the zone between WE and SE, it is difficult to make a clear prediction.

The contributions of this study lie in several aspects. First, it will enrich our knowledge of customers and service recovery. The theoretical framework proposed will resolve the conflicts about service recovery paradox in previous research. Second, it will be helpful for companies to know more about their customers and develop an appropriate attitude to service recovery. Managers will understand why superior service recovery could not always get consistent and appealing outcomes. Employees in service sectors could learn more about how to deliver service recovery more effectively and efficiently.

2 Literature review

2.1 Expectation and satisfaction

Expectation is a key construct in the research about consumer satisfaction and service quality. The disconfirmation between perception and expectation is generally considered as the determinant of consumer's satisfaction and perceived service quality (e.g., Oliver, 1977; 1980. See Fig. 1). The positive or negative disconfirmation represents that consumers are satisfied or not with product or service, and the absolute value of disconfirmation means the extent to which consumers are satisfied or dissatisfied. However, much literature has acknowledged the existence of multiple kinds of expectations (Tse and Wilton, 1988; Zeithaml, Berry and Parasuraman, 1991). Boulding et al. (1993) summarized them into two categories, namely predictive expectation (Gilly, Cron, and Barry, 1983; Swan and Trawick, 1980) and normative expectation (Swan and Trawick, 1980; Prakash, 1984). Predictive expectation represents a prediction of future events. For example, before we check in a five-star hotel, we will think that its room will be equipped with cable TV, access to Internet, and telephone, etc. Predictive expectation is wildly employed in satisfaction research. Normative expectation is often operationalized as either desired or ideal expectation, which is broadly used in perceived quality studies (e.g., Parasuraman, Zeithaml and Berry, 1988). In the case above, normative expectation for checking in a five-star hotel could be that it is free to calling and using Internet.

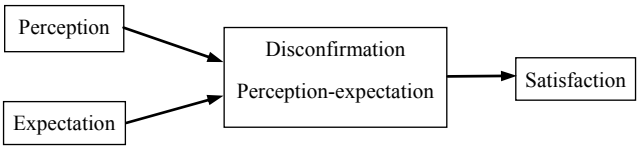

Fig. 1 Disconfirmation model

Further, based on predictive and normative expectations, Boulding et al. (1993) developed WE and SE as two different constructs to describe the dynamic service process. Will expectation is similar to predictive expectation, which is defined as what will happen in the following service encounter; while SE is the what ought to happen expectation, which is different from normative or ideal expectation for the former will be influenced by the information customers getting about current service provider or alternative providers, while the latter will be independent of who the provider or alternative providers are (Boudling et al., 1993). There are two important characteristics of these two expectations in the dynamic service process. First, WE is consistently not higher than SE, i.e., $WE_t \leqslant SE_t$, t represents a random service encounter. It means that from customers' perspective, what service provider will do is always not more or better than what they should do. Second, WE and SE could rise up with the increase of service times, i.e., $WE_t \leqslant WE_{t+1}$ and $SE_t \leqslant SE_{t+1}$. If, at this time, service delivery is perceived higher than customer's will and *SE*s, the same service delivery could be perceived lower than his two expectations at the next time because both increase and are higher than them at the first time respectively.

After reviewing expectations and satisfaction, we will examine the research about service recovery and explain why we apply WE and SE to service recovery context.

2.2 Service recovery

Previous studies about service recovery employed the paradigm of disconfirmation between perception and expectation to examine the effect of service recovery on customers' satisfaction (e.g., Andreassen, 2001; Binter, 1990; Hess, Ganesan and Klein, 2003; Smith and Bolton, 2002). In the stream of service recovery research, scholars at first argue for the existence of service recovery paradox. Smith and Bolton (1998) employ a scenario-based experiment, reporting that cumulative satisfaction and patronage intentions increase above pre-failure levels when respondents are very satisfied with the recovery efforts. Tax, Brown, and Chandrashekaran (1998) argue for the existence of the paradox through the direct impact of complaint handling on trust and commitment. However, with more

attention drawn to this issue, the conflicting results are found. McCollough, Berry, and Yadav (2000) find that overall experience satisfaction (post-recovery satisfaction) will be lower after service failure and recovery (even high-recovery performance) than in the case of error-free service. Andreassen (2001) explores posttest-only design with nonequivalent groups and report that compared with customers who have not experienced any recent service failure, service recovery will not effectively restore the complaining customers' perception of the supplier and future repurchase intention, which also challenges the existence of recovery paradox. Since there are different kinds of expectations, we further review this literature, which shows that the expectation involved in most of these studies is similar to WE. For instance, McCollough, Berry, and Yadav (2000) define recovery expectations as "expectations by the consumer regarding what the service provider will do given failure". Maxham and Netemeyer (2002) also employ similar construct and measures in their study. Taking disconfirmation paradigm employed in these studies and different expectations existing into consideration, we argue that WE could not be a single determinant of disconfirmation about service recovery, and could not totally explain the extent to which service recovery procedure restores customers' satisfaction. Combined Boulding et al.'s (1993) findings about WE and SE (i.e., $WE_t \leqslant SE_t$; $WE_t \leqslant WE_{t+1}$ and $SE_t \leqslant SE_{t+1}$), we apply these two expectations at the same time to explain the variation of customers' satisfaction after service recovery.

2.3 Theoretical framework

In service recovery context, WE for service recovery is defined as what customers predicting that will happen in service recovery; while SE for service recovery represents "what ought to happen" expectation for service recovery. For example, if an airline traveler meets a two-hour flight delay, he expects that the airline company will make an apology, which is will expectation. Considering the terrible traffic at that period of time, the traveler also expects the company ought to provide some traffic subsidy to compensate the wasted time, which is should expectation and influenced by information and signals from environment and company. There will be two settings. The first is a static case, which treats each service encounter separately; the second is a dynamic case, which views sequential service encounters as a whole process. In this paper, we will develop a framework to explore the processes in both cases.

2.4 The static case

In the static case, we explore the effects of will expectation and should

expectation for service recovery on post-recovery satisfaction within a separated time period or within a single service encounter. Considering the first characteristic of two expectations, $WE_t \leqslant SE_t$, there are three possible relationships among service recovery perception (P), WE and SE: (1) $WE \leqslant SE \leqslant P$; (2) $P \leqslant WE \leqslant SE$; and (3) $WE \leqslant P \leqslant SE$.

$WE \leqslant SE \leqslant P$. Under this situation, let us assume that customers' satisfaction (CS) before encountering a service failure is CS_0, customer's satisfaction after encountering a service failure is CS_f, and satisfaction after service recovery is CS_r. It is reasonable to predict that customers' satisfaction after encountering a service failure will be much lower than that before service failure, i.e. $CS_0 > CS_f$. The most important is that when service recovery delivery exceeds what customers expect that companies ought to do, that is, $P > SE$, customers will think that companies provide more than what they should do and take on more besides their responsibility and obligations. As a result, their satisfaction after service recovery could be higher than that before encountering service failure, i.e. $CS_r \geqslant CS_0$ (See Fig. 2).

Proposition 1 After encountering a service failure, when customers' perception of service recovery is higher than their should expectation, their post-recovery satisfaction will be higher than that of pre-failure. Service recovery paradox will be more likely to occur.

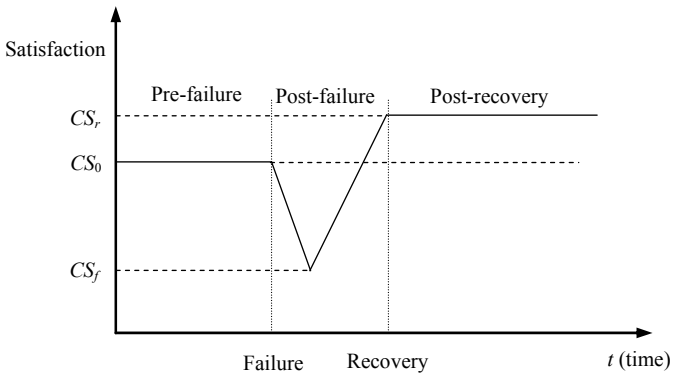

Fig. 2 Change of CS when $WE < SE < P$

$WE \leqslant P \leqslant SE$. When perceived service recovery falls into the zone between WE and SE, which means that what service providers do is consistent with their image, as a result, consumers will not feel too dissatisfied. On the other hand, they will also not be much satisfied for service providers do not fully carry out what customers think they should do. Under this situation, it is difficult to clearly predict whether customers' post-recovery satisfaction will be higher than

pre-failure level or not. Compared with the other two cases, the differences between pre-failure and post-recovery satisfaction could be not very salient (see Fig. 3).

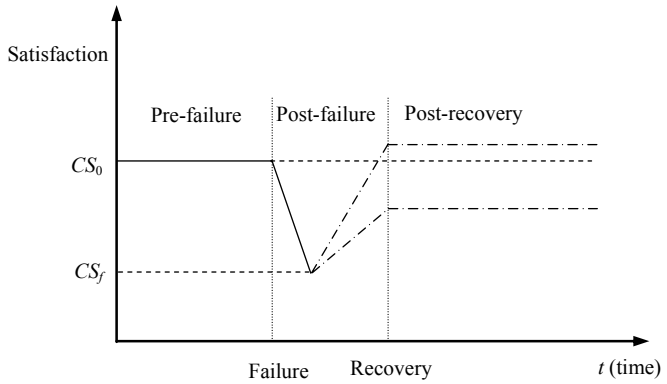

Fig. 3 Change of *CS* when *WE*<*P*<*SE*

Proposition 2 After encountering a service failure, when customers' perception of service recovery is lower than should expectation but higher than will expectation, their post-recovery satisfaction will be not saliently different with pre-failure level. Service recovery paradox will be less likely to occur.

$P \leqslant WE \leqslant SE$. When perceived service recovery does not exceed customers' will expectation, it means that service providers do not do what customers think they will do, which will weaken customers' trust on service companies, and destroy the companies image. Customers will think that these companies are not competent to provide service. Therefore, their satisfaction after service recovery could never be restored to be higher than pre-failure level (see Fig. 4).

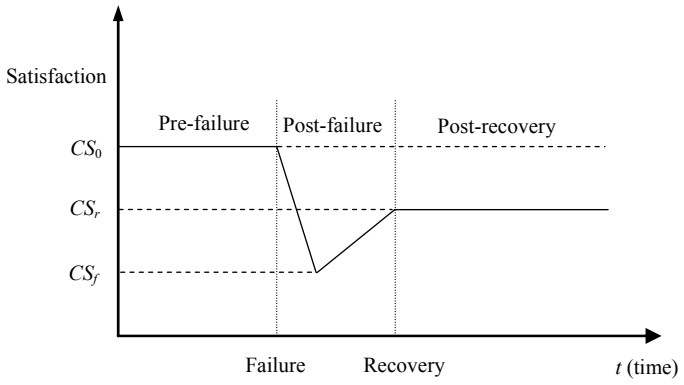

Fig. 4 Change of CS when P<WE<SE

Proposition 3 After encountering a service failure, when customers' perceptions of service recovery are lower than their will expectation, their post-recovery satisfaction will be lower than that of pre-failure. Service recovery paradox will be less likely to occur.

Together, these propositions could explain the paradoxical findings about service recovery in previous studies. For the existing of two kinds of expectations and most of the focus of the measurement about expectation in previous studies on WE, even though perceived service recovery is higher than customers' WE, i.e. customers will feel satisfied with service recovery, as long as this perception does not exceed SE on service recovery, it is less likely for customers' post-recovery satisfaction to be restored above the pre-failure level.

2.5 The dynamic case

What we have discussed focuses on one service transaction, in which customers expectations are independent with their previous similar experiences. For the ongoing relationship between customers and service companies, how do effects of service recovery change when customers experience multiple service failures? Previous studies, except Maxham and Netemeyer's (2002), pay less attention to this problem. Using longitudinal data from field study, Maxham and Netemeyer (2002) find that although satisfactory recoveries can produce a "recovery paradox" after one failure, they do not trigger such paradoxical increases after two failures. They define service recovery expectations as customers' predictions regarding the extent to which a firm will handle their complaint, which is consistent with the definition of will expectation in Boulding et al. (1993). In their framework, satisfaction with recovery and overall service satisfaction are involved in respectively. Their conclusions come from the comparison of overall satisfaction between of pre-failure and of post-recovery. In this part, consistent with the static framework proposed in the static case, we could extend previous studies by including should expectation in the dynamic process and discuss the possible cases in this process according to the three propositions in the static case. Suppose that customers encounter service failure at the second time, their expectations (SE_2 and WE_2) will be different with the ones (SE_1 and WE_1) at the first time.

Case 1: $WE_1 \leqslant SE_1 \leqslant P_1$. If at the last time, their perceptions are higher than their should expectations, their current expectations could increase ($WE_2 \geqslant WE_1$; $SE_2 \geq SE_1$) and should expectation will close to their previous perceptions ($SE_2 \approx P_1$). It means that when companies deal with service failure in the way that exceeds what customers think they should do, at the next time, what

companies have done previously becomes what companies should do.

Case 1a: $P_2 \geqslant P_1$. Under this case, company does well at the first time, and does even better at the second time. As a result, the relationship among perceptions and two expectations at the second time will be $WE_2 \leqslant SE_2 \leqslant P_2$. It is the case described in Proposition 1, in which service recovery paradox is more likely to occur.

Case 1b: $P_2 \leqslant P_1$. The service recovery this time is delivered worse than previous time. Customers' current perceptions of service recovery could lie between their current will and should expectations ($WE_2 \leqslant P_2 \leqslant SE_2$) or be lower than both expectations ($P_2 \leqslant WE_2 \leqslant SE_2$). It includes the cases in both Proposition 2 and Proposition 3. In both cases, service recovery paradox is difficult to occur.

Case 2: $WE_1 \leqslant P_1 \leqslant SE_1$. When customers' previous perceived service recovery is better than their will expectations, but lower than their should expectations, both their should and will expectations keep stable during current period ($SE_2 \approx SE_1$ and $WE_2 \approx WE_1$).

Case 2a: $P_2 \geqslant P_1$. In current stage, for perceived service recovery is better than it at last time, it is possible that customers' current perceptions is higher than their should expectations ($WE_2 \leqslant SE_2 \leqslant P_2$) or still fall into the zone between will and should expectations ($WE_2 \leqslant P_2 \leqslant SE_2$). Both cases in Proposition 1 and Proposition 2 could happen. However, whether the service recovery paradox could happens depends on the extent to which company improve their service recovery. In summary, the probability for having service recovery paradox will be lower than that in Case 1a.

Case 2b: $P_2 \leqslant P_1$. If customers' current perceptions of service recovery is worse than their previous perceptions, both the case described in Proposition 2 ($WE_2 \leqslant P_2 \leqslant SE_2$) and Proposition 3 ($P_2 \leqslant WE_2 \leqslant SE_2$), in which service recovery paradox is less likely to occur.

Case 3: $P_1 \leqslant WE_1 \leqslant SE_1$. If customers' perceptions of service recovery at the first time are worse than their will expectations, some of them would expect that company improve their service recovery next time while others will reduce their expectation to avoid dissatisfaction. As a result, customers' will expectations at the second time could be lower ($WE_2 \leqslant WE_1$) or higher ($WE_2 \geq WE_1$) as well as their should expectations keep consistent ($SE_2 \approx SE_1$).

Case 3a: $P_2 \geqslant P_1$. When customers' perceptions of service recovery at the second time is better than their perceptions last time, to both customers reducing their will expectations and those enhancing their expectations, all of three situations described in the static case could happen, which depend on the degree to which perceptions at two times are different with each other. If current perceptions become much better than last time, it could be the case that $WE_2 \leqslant SE_2 \leqslant P_2$. If they are not, it could be the case that $WE_2 \leqslant P_2 \leqslant SE_2$ or $P_2 \leqslant WE_2 \leqslant$

SE_2. As a result, it is not much likely to have service recovery paradox under this condition unless customers' perceptions of service recovery are improved dramatically at the second time.

Case 3b: $P_2 \leqslant P_1$. If customers' perceptions of service recovery at the second time is worse than their perceptions last time, when will expectations decrease ($WE_2 \leqslant WE_1$), both cases described in Proposition 2 ($WE_2 \leqslant P_2 \leqslant SE_2$) and Proposition 3 ($P_2 \leqslant WE_2 \leqslant SE_2$) could happen; on the other hand, when will expectations increase ($WE_2 \geqslant WE_1$), the perceptions of service recovery will be lower than both expectations ($P_2 \leqslant WE_2 \leqslant SE_2$), which turns to be the case described in Proposition 3. In sum, service recovery paradox under this situation is less likely to occur.

Proposition 4 When customers encounter service failure again, if service recovery is delivered better than the first time, it is less likely to have the case described in Proposition 3, even though the probability to have service recovery paradox is not high; if service recovery is delivered worse than the first time, it is impossible to have the case described in Proposition 1 and less likely to have service recovery paradox.

3 Empirical test

3.1 Exploratory Study 1

The purpose of this exploratory study is to provide some preliminary evidence of our propositions in the static case. Specifically, we intend to find that whether customers could differentiate will and should expectations on service recovery when they encounter service failure, and within the same service transaction, whether the influences of two kinds of expectations on customers' post-recovery satisfaction are consistent with our propositions (Proposition 1–3). Respondents were provided questionnaires that described a scenario of service failure. At the beginning of the scenario, respondents were told as follows. "One day, your families and you go to a restaurant to have dinner, where you have gone twice before and felt satisfied about last two experiences. At this time, the dishes you ordered are served quickly. You are eating and chatting. Everything is going well." Then respondents were asked to rate their satisfaction on a 7-point Likert scale (1=totally dissatisfied and 7=totally satisfied). In the next part, service failure was encountered. "Suddenly, you find a worm in a vegetable dish." Respondents' satisfaction after service failure was also rated. Their will and should expectations were measured by asking

respondents two open-ended questions. The question about will expectation was "what do you expect that the restaurant will do in service recovery" and the one of should expectation was "what do you expect that the restaurant should do in service recovery". After these questions, service recovery procedure was provided in scenario. The recovery measures were collected through individual interview, which included "apology of manager, freeing the charge of that dish, adding a specialty of this restaurant for free, and giving customers a VIP card that enables customers to have dinner in this restaurant with 20% discount in the future". Respondents rated their final satisfaction and provided the information about their demographic characteristics in the end.

We distributed 100 questionnaires in a state-owned company in a northern China province. Altogether 84 were returned and 16 were deleted for their uncompleted or obviously illegal answers. We asked two raters, who knew nothing about our research purposes, to classify the 68 questionnaires remained into three categories (i.e. the possible cases of the relationships among perception and two expectations) according to the recovery procedure provided in the scenario, and will and should expectations answered by respondents. Finally, we got 47 cases that were classified consistently by two raters (inter-rater reliability equals to 0.69), among which 32 were the cases of perception lower than both will and should expectations ($P<WE<SE$); 13 were the cases of perception falling into the zone between will and should expectations ($WE<P<SE$); and 2 were the cases of perception higher than both of two expectations ($WE<SE<P$). For the sample size of Proposition 1 is too limited to test the differences of satisfaction between post-recovery and pre-failure statistically, we only inspected the two questionnaires respectively. Either post-recovery satisfaction is 1 unit higher than pre-failure one, which provides initial evidence for the high likelihood of service recovery paradox in the case of perception exceeding both expectations.

Paired-sample t-test was employed to test the effect of service recovery in the cases of Proposition 2 and 3 (See Table 1). In both cases, recovery procedure restores customers satisfaction effectively (post-recovery satisfaction is significantly higher than post-failure level, t=4.28, p=0.001 and t=9.93, p=0.000). When perceived service recovery lies in the zone between will and should expectations, the differences between post-recovery satisfaction and pre-failure one are not very significant (p=0.061), which is consistent with Proposition 2. When perceived service recovery is lower than both expectations, post-recovery satisfaction is significantly lower than that of pre-failure (p=0.000), which means that service recovery paradox in this case is difficult to occur. Proposition 3 also has some empirical evidence.

Table 1 Results of comparing means

Variable		Mean	S.D.	*t*	*d.f.*	*p* (two-tailed)
WE<*P*<*SE*	*PoRS* – *PrFS*	–0.66	1.10	–2.07		0.061
	PrFS – *PoFS*	2.69	1.96	5.51	12	0.000
	PoRS – *PoFS*	2.03	1.88	4.28		0.001
P<*WE*<*SE*	*PoRS* – *PrFS*	–0.92	0.88	–5.82		0.000
	PrFS – *PoFS*	3.15	2.01	8.73	31	0.000
	PoRS – *PoFS*	2.23	1.25	9.93		0.000

Note: *PoRs*—post-recovery satisfaction; *PrFS*—pre-failure satisfaction; *FoFS*—post-failure satisfaction.

3.2 Exploratory Study 2

For the limitation of sample size in Study 1, we modify the scenario by improving service recovery (apology, canceling the dish order, providing a discount, and giving some coupon) and reducing service failure severity (from bad food to long waiting time). Will and should expectations were measured by multiple-item scales. Customers' satisfaction on pre-failure, post-failure, and post-recovery stages was measured with multiple items. Mall interception was used to collect data. One hundred and sixty questionnaires were distributed and 157 were returned. We select cases according to whether their *SE*s on each item is higher than its *WE* respectively. At last, we get 128 valid respondents. Sixty-four of them were male and 64 were female.

There are three items to measure customer's satisfaction. The first one is about overall satisfaction, and the other two are to measure repurchase intention and recommend intention. The Cronbach alpha of the three item for customer satisfaction on different stage equals to 0.73 (pre-failure stage), 0.89 (post-failure stage), and 0.88 (post-recovery stage) respectively. The results of CFA are listed in Table 2. We employed three methods to explore whether service recovery paradox exists: compare each item of consumer satisfaction (*CS*) on each stage respectively, compare the average score of three items on each stage, and compare the unstandardized factor score of *CS* on three stages. Table 3 shows that no matter what analysis method we employ, SRP consistently exists.

Table 2 CFA results of different stages (whole sample *N*=37)

Stage	# of factors	KMO measure	Percentage of variance (%)
Pre-failure	1	0.72	65.65
Post-failure	1	0.74	82.28
Post-recovery	1	0.70	80.79

Table 3 Differences between pre-failure and post-recovery satisfaction

	Mean	S.D.	*t*	*d.f.*	*Sig.*
Item					
Pre-failure satisfaction – Post-recovery satisfaction	–0.609	1.341	–5.140	127	0.000
Pre-failure repurchase intention – Post-recovery repurchase intention	–0.391	1.275	–3.466	127	0.001
Pre-failure recommend intention – Post-recovery recommend intention	–0.156	1.342	–1.317	127	0.190
Factor Score					
Pre-failure – Post-recovery	–0.387	1.107	–3.952	127	0.000
Average Score					
Pre-failure – Post-recovery	–0.385	1.103	–3.953	127	0.000

4 Discussion

This study focuses on the influences of two expectations on consumer satisfaction during service recovery. The theoretical framework explains the confliction in the existence of service recovery paradox. Empirical findings initially support our propositions in transaction-specific cases.

The framework in our study seems structurally similar to the Coyne's (1989) twin-threshold framework and the Zeithaml, Berry and Parasuraman's (1996) tolerance zone framework. Focusing on the consumer-durable context, Coyne (1989) provides evidence to show that when satisfaction rose above a certain threshold, repurchase loyalty climbed rapidly, while satisfaction fell below a different threshold, customer loyalty declined rapidly too, and between these two thresholds, loyalty was relatively flat. Zeithaml, Berry, and Parasuraman (1996) define the tolerance zone as the interval between desired service and adequate service, which would moderate the relationship of service quality and behavioral intention. Compared with these two frameworks describing the process of service delivery and its effects on behavioral intention, our model focuses on the process of service recovery and tend to examine the effect of two different expectations on customer's satisfaction about service recovery and explain when service recovery paradox occur.

There are several managerial implications of our research. First, service recovery is indispensable to companies, but the more important is that only service recovery is not sufficient. The framework proposed indicates that effective service recovery could maintain customers' satisfaction to some degree; however, the final outcome is not necessarily consistent. When managers realize

the shortcomings existing in service recovery, service recovery could just make efficient performance. Second, the same service recovery procedure could result in different effects on customers' satisfaction. If customers' perception exceeds their SE, they will actually feel service provider's concerns about them. As a result, their satisfaction could be restored to a high level. To other customers, this recovery procedure could be perceived lower than their will expectation, so there is little effect of service recovery on restoring customers' satisfaction. Third, managers should not always provide excellent service recovery to maintain their service cost. For customers expectations (both will and should) will increase when they encounter service failure at next time if their perceived service recovery exceeds their expectations at the first time, managers have to deliver better service recovery to effectively restore customer's satisfaction than what they provided at the first time, which will increase companies' service cost dramatically. Maybe the wise way for managers to retain customers is to provide good recovery program and maintain their expectations at the same time.

Needless to say, this research has its limitations. First, more theoretical work is needed to develop our propositions into testable hypotheses, especially Proposition 4. Second, the empirical part needs to be further strengthened. It is a just exploratory study, whose findings could only provide some empirical evidence, but not test our propositions statistically. Therefore, larger sample size, more quantitative research design should be involved in the future research.

Further research could extend our study in several ways. The framework we proposed should be tested in different service context to improve its generalizability. The determinants of two kinds of expectations are also worth exploring. For example, involvement, switching cost, the constructs describing the characteristics of different service context, could influence customer satisfaction on service recovery via the mediating role of two expectations. Failure severity (Maxham and Netemeyer, 2002) is another possible antecedent of two expectations. All these variables should be identified and added to the whole picture.

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